(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
29 December 2004 (29.12.2004)

PCT

(10) International Publication Number
WO 2004/113750 A1

(51) International Patent Classification[7]: F16C 33/58, 33/61

(21) International Application Number: PCT/SE2004/000987

(22) International Filing Date: 21 June 2004 (21.06.2004)

(25) Filing Language: Swedish

(26) Publication Language: English

(30) Priority Data:
0301845-4 23 June 2003 (23.06.2003) SE

(71) Applicant *(for all designated States except US)*: AB AGORA [SE/SE]; Bäckgatan 16, S-352 31 Växjö (SE).

(72) Inventor; and
(75) Inventor/Applicant *(for US only)*: RISBERG, Peter [SE/SE]; Vikingagatan 17, S-352 36 Växjö (SE).

(74) Agent: KURT LAUTMANNS PATENTBYRÅ AB; Kurt Lautmann, Box 245, S-691 25 Karlskoga (SE).

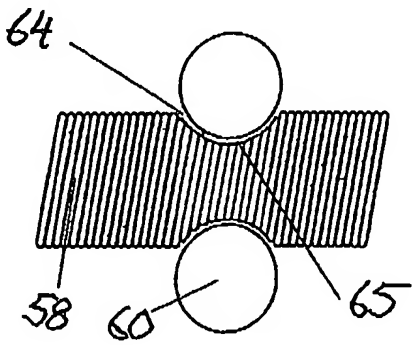
(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ROLLING BEARING



(57) Abstract: In rolling bearings such as ball bearings comprised of two co-axially arranged bodies (3, 2; 14, 15; 28, 29; 40, 45; and 54, 58), one of these being disposed outside the other, the two bodies having two opposing surfaces between which there are arranged a number of rotatable units (6, 17, 30, 42 and 60) such as balls or rollers, said opposing surfaces having grooves, the units being retained in the grooves of the two opposing surfaces of the two bodies, at least one of these bodies being formed of a helical spring that has the character of a sleeve and is so wound that a grooved section (4, 16, 22, 32, 41, 48 and 57) results, it has been shown that, if the groove's outer surface is matched to the outer surfaces of the rotatable units, the loading to which the rolling bearing is subjected can be considerably increased.

WO 2004/113750 A1